Site Assessment Report and Closure Summary UST Site 364 Naval Air Facility, El Centro, California

The assessment activities documented herein refer to Underground Storage Tank (UST) Site 364 at Naval Air Facility, El Centro, California. The work was performed under a generic work plan, dated November 24, 2003, and Site 364 work plan addendum, dated March 4, 2004, prepared by the Public Works Center San Diego (PWCSD). Both documents were approved by the California Regional Water Quality Control Board (RWQCB) – Colorado River Basin Region. Refer to the work plan and addendum for particulars of field quality assurance/quality control, sampling and analysis, safety and health, and investigation-derived waste handling. This document is limited to the site-specific elements for Site 364. It documents field activities, contains data results, summarizes findings, and provides conclusions and recommendations. Where field activities deviate from the work plan, additional information is contained herein. Information pertinent to the RWQCB's Closure Summary is provided at the end of this report.

Site Information

Site Name:	UST Site 364
Site Address:	Southwest of 2nd and "B" Streets, southeast corner of Building 364 Naval Air Facility El Centro, California 92243
Tank Coordinates:	Easting: 6,737,964 Northing: 1,878,546 feet (State Plane 6)
Facility Name:	Chaplain's Office
Property Owner:	United States Navy
Tank Owner/Operator:	United States Navy
Responsible Party:	United States Navy
Contact Person:	Robert Fischer, Environmental Protection Specialist 1605 Third Street, Building 504, Code 45RF Naval Air Facility El Centro, CA 92243-5001 (760) 339-2284
RWQCB File Number:	7DODT22430020

Prepared for: **Commander, Navy Region Southwest**
Naval Air Facility El Centro, Code N45ECW

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Background Information

Year Installed:	Unknown
Construction Materials:	Unknown
Capacity:	1,200 gallons
Contents:	Diesel
Year Removed:	Closed in place in 1986 by Blackman Plumbing

Figure 1 shows a map of the site location and previous and current assessment locations.

According to *Final Technical Memorandum Underground Storage Tank Site Investigation,* dated March 2000, prepared by Bechtel National, Inc. (BNI, 2000), Blackman Plumbing closed a 1,200-gallon UST in place in 1986 at the location shown on Figure 1. No soil or groundwater samples were collected as part of tank closure.

In 1999, BNI advanced two direct-push soil borings and one HydroPunch groundwater boring. BNI placed the soil borings at the perimeter of the original tank pit, and collected a total of four soil samples (two from each boring at depths of 7.6 and 11 feet below ground surface [bgs]). Analytical testing results indicated that soil concentrations of total petroleum hydrocarbons quantitated as gasoline (TPH-gasoline) and TPH-diesel met the cleanup criteria. The HydroPunch boring was located approximately 60 feet north (downgradient) of the tank site. A groundwater sample collected from a depth range of 12 to 16 feet did not contain constituents of concern greater than cleanup levels. However, the detection limit for benzene and MTBE exceeded their respective action levels. TPH-gasoline was reported at 6,800 micrograms per liter (ug/L) in the groundwater sample, but no cleanup criteria is established for this constituent.

PWC Investigation

The purpose of our current assessment activity was to address the Problem Statement: *Groundwater unconfirmed whether or not action levels for benzene and MTBE are met.* Field activities were performed April 5, 2004.

Geophysical testing for utilities prior to subsurface exploration confirmed the presence of the UST as previously reported. Removal of the tank is not contemplated due to its location in the sidewalk adjoining the foundation of Building 364. In accordance with the work plan, a groundwater sample was collected from a temporary well located approximately 72 feet downgradient of the UST location. The well was installed using the hydraulic probe on the Site Characterization and Analysis Penetrometer System (SCAPS). In addition, SCAPS measured Laser Induced Fluorescence (LIF) in a push boring located adjacent to and east of the UST. Assessment point locations are shown on Figure 1. Building 364, landscaping, underground utilities, and other structures precluded additional sample points. No fluorescence characteristic of petroleum, oil, or lubricants (POL) was encountered by the LIF probe in the location tested (EC-364-01). At location EC-110-02, a groundwater sample was collected from a ¾-inch diameter PVC temporary well screened with 0.010-inch slot from 6 to 16 feet bgs. The groundwater grab sample was collected unpurged using a single-use disposable bailer and was immediately delivered to an on-site mobile laboratory for analytical testing. BTEX and MTBE were not detected in the groundwater sample. Groundwater was measured at approximately 13.7 feet bgs. Sample locations and analytical results are illustrated on Figure 1. The temporary well was abandoned by grouting in place.

Conclusions and Recommendation

Based on the findings of our assessment, and the information from previous assessment activities, the vertical and horizontal extent of fuel-impacted soils has been delineated to the extent practicable. The data suggests that no soil outside the immediate footprint of the tank is impacted. Groundwater does not appear to be adversely affected by fuel contamination.

It is the opinion of PWCSD that further assessment or remediation at this site is unnecessary. We recommend that no further action be considered for this site.

Site Characterization and Closure Information

Description of the former UST:	See Background Information, page 1.
Contaminants Identified:	See attached analytical results table.
Amount of Contaminants Leaked:	Not estimated. See attached analytical results table.
MTBE:	None detected.
Description of the soil/geology:	Subsurface geology consists of predominately fine grained lithology with laterally discontinuous lenses of interbedded fine sands, silts, and clays.

Is soil contamination completely delineated (to what levels)? Yes. Based on a review of the analytical data, no measurable soil contamination is present.

Estimated volume of contaminated soil left on site and concentration: Negligible to none.

Is groundwater contamination completely delineated? Yes. Current analytical results for groundwater show that constituents of concern are not detected.

Monitoring wells installed, properly permitted? No monitoring wells were installed.

Depth to groundwater: Approximately 13.7 feet bgs.

Is groundwater or surface water impacted? No. All analytical results for groundwater meet cleanup goals for the site (below tap water PRGs and drinking water MCLs).

Remedial action taken? UST closed in place in 1986.

Does complete corrective action protect beneficial uses per the RWQCB Basin Plan? Yes.

Site Closure: Due to negligible impacted soil that is anticipated to remain in place, and no documented groundwater impact from a fuel release from this site, and a site that is covered by asphalt or landscaping, the contaminants that may remain, do not pose an unacceptable risk to human health or the environment. The recommendation for site closure is accepted and no further action is required at this site.

Signature: *Date:*

N.R. Wells
Lieutenant Commander, CEC, US Navy
By direction of
The Commanding Officer

Signature: Liann Chavez *Date:* 11-17-05

Liann P. Chavez, R.G.
Senior Engineering Geologist
California Environmental Protection Agency
California Regional Water Quality Control Board
Colorado River Basin Region

Attachments: Figure 1 – Assessment Results
Table 1 – Site Cleanup Goals
Table 2 – SCAPS and Groundwater Results
SCAPS Log
Laboratory Analytical Report and Chain-of-Custody Documentation

Signature: K A Counts-Lineses Date: 08/03/06
Kimberly A. Counts-Lineses
Environmental Installation Program Director
By direction of
The Commanding Officer